



# PTT Global Chemical

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Public Company Limited

# PTTGC

Bloomberg PTTGC TB  
Reuters PTTGC.BK

## Lower margin QoQ to hit 4Q21F

**PTTGC's 4Q21F net profit (release Feb 14) is expected to fall 25% YoY and 31% QoQ to Bt4.8bn on weaker olefins and aromatics off a narrowed product spread and lower utilization rate. Oil refining will be upheld by higher market GRM for diesel and low sulfur fuel oil. This is likely behind the fall in share price in the past two months (-4.2%), underperforming the SET (+0.2%). Although valuation is undemanding at 0.8x PBV (2022), there is no new share price catalyst. Hence, we downgrade our tactical rating from Outperform to Neutral with TP (end-2022) of Bt80 (down from Bt82), 1.1x PBV.**

**Core profit to fall QoQ.** Narrower product spread for olefins and aromatics is expected to pull 4Q21F core profit down 18.3% YoY and 60.9% QoQ to Bt3.4bn. Some help was given by a better performance for oil refining by a high utilization rate and much stronger GRM, doubling to US\$6.4/bbl in 4Q21F from US\$3.2/bbl in 3Q21 due to strong recovery of crack spread for middle distillate products (70% of product yield) and LSFO (16%). We also expect a stock gain of Bt700mn on the pick-up in oil price in mid-Dec after falling from peak in early Nov.

**Olefins: adjusted EBITDA margin to narrow further QoQ.** We expect earnings for olefins and polymers to weaken further from 3Q21 on a lower utilization rate for olefins crackers to 85% in 4Q21 from 91% in 3Q21 due to less favorable product spread off a higher naphtha price that led it to cut naphtha-based cracker utilization, including the olefins reconfiguration project (ORP). On the other hand, a more competitive feedstock cost led its gas-based olefins crackers to operate full-out, sufficient to accommodate the downstream PE needs, running at >100% utilization. Adjusted olefins EBITDA is likely to fall to 16% - lowest since 3Q20 - from 18% in 3Q21.

**Aromatics: earnings halved from 3Q21.** Aromatics product spread fell in 4Q21 on lower product price and higher cost for feedstock condensate, which rose in tandem with oil price. We believe this cut its product-to-margin in 4Q21 to US\$111/t, the lowest in 2021, from US\$188/t in 3Q21. It also cut utilization rate to 95-97% in 4Q21 from 100% in 3Q21 as high inventory led to slow demand for downstream PTA and SM.

**Performance materials & chemicals: weaker QoQ on maintenance shutdown.** Phenol contributed most earnings in the PMC segment for 9M21 thanks to a high product spread. Unfortunately, profit from phenol fell sharply QoQ in 4Q21F on a one-month shutdown of phenol plant 1, though product spread stayed good (+31% QoQ). PO/Polyol plant was also shut down for maintenance in 4Q21 while operating rate was still low at 60%±. We estimate a fall in PMC earnings of 35% QoQ, though still +29% YoY.

**TP trimmed to Bt80.** Although we remain positive on PTTGC as higher oil price will support olefins chain product price and spread, the maintenance shutdown of its main olefins cracker in 2022 will hurt earnings in 2022F, though with some partial offset by profit from Allnex, which was acquired at end-2021. Note that we may have to revisit our 2022F when more guidance on Allnex is available. We trim TP from Bt82 to Bt80, based on 1.1x PBV (2022F). Key risk is oil price volatility, weaker demand for products and the move to ban single-use plastics (<3% of capacity).

### Forecasts and valuation

Year to 31 Dec	Unit	2019	2020	2021F	2022F	2023F
Revenue	(Btmn)	412,810	329,291	452,101	466,509	462,286
EBITDA	(Btmn)	27,239	19,891	67,206	51,562	55,612
Core profit	(Btmn)	8,164	(932)	35,625	25,304	28,752
Reported profit	(Btmn)	11,682	200	49,242	25,304	28,752
Core EPS	(Bt)	1.81	(0.21)	7.90	5.61	6.38
DPS	(Bt)	2.00	1.00	4.30	2.80	3.20
P/E, core	(x)	31.3	n.a.	7.2	10.1	8.9
EPS growth, core	(%)	(79.9)	n.a.	n.a.	(29.0)	13.6
P/BV, core	(x)	0.9	0.9	0.8	0.8	0.7
ROE	(%)	2.7	(0.3)	11.5	7.6	8.3
Dividend yield	(%)	3.5	1.8	7.6	4.9	5.6
FCF yield	(x)	(4.5)	(2.5)	14.7	10.0	7.1
EV/EBIT	(x)	41.9	(856.2)	7.2	11.1	9.7
EBIT growth, core	(%)	(80.1)	n.a.	n.a.	(37.2)	12.9
EV/CE	(x)	1.1	1.1	1.0	1.0	1.0
ROCE	(%)	1.6	(0.8)	10.4	7.4	8.7
EV/EBITDA	(x)	12.4	17.3	4.7	5.9	5.4
EBITDA growth	(%)	(54.2)	(27.0)	237.9	(23.3)	7.9

Source: SCBS Investment Research

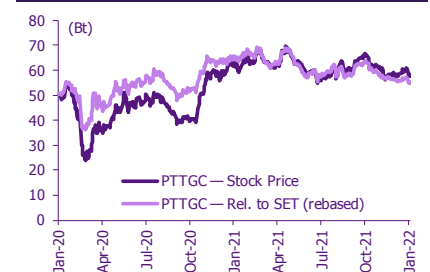
## Tactical: NEUTRAL

(3-month)

### Stock data

Last close (Jan 25) (Bt)	56.75
Target price (Bt)	80.00
Mkt cap (Btbn)	255.88
Mkt cap (US\$mn)	7,742
Beta	H
Mkt cap (%) SET	1.32
Sector % SET	3.28
Shares issued (mn)	4,509
Par value (Bt)	10.00
12-m high / low (Bt)	70 / 54.3
Avg. daily 6m (US\$mn)	34.39
Foreign limit / actual (%)	37 / 16
Free float (%)	54.3
Dividend policy (%)	≥ 30

### Price performance



Source: SET, SCBS Investment Research

### Share performance

(%)	1M	3M	12M
Absolute	(3.0)	(12.7)	(9.6)
Relative to SET	(3.1)	(12.9)	(16.5)

Source: SET, SCBS Investment Research

### Analyst

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## Value proposition

PTTGC is PTT Group's flagship chemical company. It is also the largest ethane-based petrochemical producer in Thailand with fully integrated petrochemical and refinery operations and a diversified product portfolio covering the full hydrocarbon chain, as well as ventures in green chemicals. While the ethylene output from the 2.4mtpa-crackers is mostly consumed internally to produce 1.9mtpa polyethylene, the company supplies propylene to contracted customers, primarily companies under the PTT Group. PTTGC also operates a 280kbd oil refinery, comprising a 145kbd conventional oil refinery and 135kbd condensate residual splitter as aromatics plants, bringing total petrochemical output to 9.25mtpa. PTTGC has steadily expanded its product portfolio to specialty chemicals, including ethylene oxide (EO)-based performance products and ethylene glycol (EG), as well as phenol and related. PTTGC has also invested in the bio-based chemical business, using crude palm oil and crude palm kernel oil as the key feedstock to produce methyl ester (biodiesel) and related products via its subsidiary, Global Green Chemicals Plc (GGC).

## Business outlook

PTTGC's earnings skyrocketed in 2021 on a favorable petrochemical product spread and extra gain from the sale of an asset, i.e., partial interest in GPSC. Profit in 2022F could come down off the high base in 2021. Further, it plans to shut down most of its olefin crackers for maintenance spread out over the year, though mainly in 2Q22 when the largest cracker (1mtpa) is closed for 39 days. We expect product spread for the olefins chain to remain solid, though slip YoY, and oil refining margin to improve strongly on higher demand for refined oil products as it recovers back to pre-COVID level. More earnings contribution from the specialty chemical business is expected from 2022 onwards after completion of the Allnex acquisition in early 2022. Expanding to more specialty and recycled products will also reduce earnings volatility compared to commodity grade products.

Bullish views	Bearish views
1. PTTGC's competitive feedstock cost, mainly ethane from PTT's gas separation plant, will support profitability in the medium term.	1. PTTGC's plan to invest in an olefins cracker in the US continue to undermine investor appetite for the stock as gas cost in the US may be less competitive on the new US administration's policy to reduce fracking activities.
2. Its feedstock flexibility will increase after the olefins retrofit project (ORP) started up in 2Q21 and the olefins 2 modification project (OMP) commences operations in 2023.	2. Investors are concerned about the depleting gas reserves in the Gulf of Thailand which will reduce its competitiveness in the longer term.
3. The planned expansion in downstream specialty and recycled products will stabilize profitability in the long term.	

## Key catalysts

Factor	Event	Impact	Comment
Strong PE price and improving GRM	Demand for PE will remain solid while demand recovery for refined oil product will support market GRM.	Positive	PTTGC's earnings rely heavily on the olefins chain, especially PE. We also expect demand for refined oil products, mainly middle distillates and low-sulfur fuel oil, to gradually boost GRM from a low base in 2021.
Near-term earnings outlook	4Q21F earnings momentum	Lower YoY and QoQ	We expect profit to be supported by the oil refining segment while olefins, aromatics and performance chemical businesses will weaken QoQ due to narrower product spread and maintenance shutdown. Nonetheless, the olefins segment will remain the key earnings contributor.

## Key catalysts

Factor	Earnings impact	TP impact
EBITDA margin (+0.1%)	+1.5%	+Bt0.2/share

## Financial statement

## Profit and Loss Statement

FY December 31	Unit	2016	2017	2018	2019	2020	2021F	2022F	2023F
Total revenue	(Btmn)	355,524	439,921	518,655	412,810	329,291	452,101	466,509	462,286
Cost of goods sold	(Btmn)	311,973	382,271	466,026	390,619	317,093	389,974	422,453	416,740
<b>Gross profit</b>	<b>(Btmn)</b>	<b>43,551</b>	<b>57,650</b>	<b>52,629</b>	<b>22,191</b>	<b>12,198</b>	<b>62,127</b>	<b>44,056</b>	<b>45,546</b>
SG&A	(Btmn)	12,678	14,197	14,854	16,469	14,881	20,070	18,640	16,621
Other income	(Btmn)	3,018	2,364	2,694	2,319	2,283	1,759	2,109	2,138
Interest expense	(Btmn)	4,277	3,935	3,593	3,119	3,511	6,146	6,082	5,921
<b>Pre-tax profit</b>	<b>(Btmn)</b>	<b>29,614</b>	<b>41,882</b>	<b>36,876</b>	<b>4,922</b>	<b>(3,912)</b>	<b>37,670</b>	<b>21,443</b>	<b>25,142</b>
Corporate tax	(Btmn)	3,090	3,863	2,986	649	(109)	7,932	2,144	2,514
Equity a/c profits	(Btmn)	2,576	5,572	6,895	4,559	3,323	6,566	6,697	6,831
Minority interests	(Btmn)	(2,572)	(2,822)	(201)	(667)	(452)	(678)	(692)	(706)
<b>Core profit</b>	<b>(Btmn)</b>	<b>26,527</b>	<b>40,768</b>	<b>40,583</b>	<b>8,164</b>	<b>(932)</b>	<b>35,625</b>	<b>25,304</b>	<b>28,752</b>
Extra-ordinary items	(Btmn)	(925)	(1,470)	(514)	3,518	1,132	13,617	0	0
<b>Net Profit</b>	<b>(Btmn)</b>	<b>25,602</b>	<b>39,298</b>	<b>40,069</b>	<b>11,682</b>	<b>200</b>	<b>49,242</b>	<b>25,304</b>	<b>28,752</b>
EBITDA	(Btmn)	51,371	65,267	59,524	27,239	19,891	67,206	51,562	55,612
<b>Core EPS</b>	<b>(Btmn)</b>	<b>5.88</b>	<b>9.04</b>	<b>9.00</b>	<b>1.81</b>	<b>(0.21)</b>	<b>7.90</b>	<b>5.61</b>	<b>6.38</b>
Net EPS	(Bt)	5.68	8.72	8.89	2.59	0.04	10.92	5.61	6.38
DPS	(Bt)	2.85	4.25	4.25	2.00	1.00	4.30	2.80	3.20

## Balance Sheet

FY December 31	Unit	2016	2017	2018	2019	2020	2021F	2022F	2023F
Total current assets	(Btmn)	129,169	140,738	144,310	104,494	129,911	170,825	174,663	203,590
Total fixed assets	(Btmn)	284,344	294,226	324,945	348,020	359,472	364,094	364,910	362,249
<b>Total assets</b>	<b>(Btmn)</b>	<b>413,513</b>	<b>434,964</b>	<b>469,255</b>	<b>452,514</b>	<b>489,383</b>	<b>534,919</b>	<b>539,573</b>	<b>565,839</b>
Total loans	(Btmn)	95,200	96,022	95,655	106,778	148,002	151,562	144,889	167,765
Total current liabilities	(Btmn)	54,470	60,313	73,858	53,033	59,041	74,568	47,034	31,812
Total long-term liabilities	(Btmn)	92,030	94,387	91,915	105,886	141,347	131,897	154,773	180,148
<b>Total liabilities</b>	<b>(Btmn)</b>	<b>146,500</b>	<b>154,700</b>	<b>165,773</b>	<b>158,919</b>	<b>200,389</b>	<b>206,465</b>	<b>201,806</b>	<b>211,960</b>
Paid-up capital	(Btmn)	45,088	45,088	45,088	45,088	45,088	45,088	45,088	45,088
<b>Total equity</b>	<b>(Btmn)</b>	<b>267,014</b>	<b>280,264</b>	<b>303,482</b>	<b>293,595</b>	<b>288,994</b>	<b>328,454</b>	<b>337,767</b>	<b>353,879</b>
<b>BVPS</b>	<b>(Bt)</b>	<b>54.56</b>	<b>60.96</b>	<b>65.66</b>	<b>63.39</b>	<b>62.33</b>	<b>70.93</b>	<b>72.84</b>	<b>76.26</b>

## Cash Flow Statement

FY December 31	Unit	2016	2017	2018	2019	2020	2021F	2022F	2023F
Core Profit	(Btmn)	26,527	40,768	40,583	8,164	(932)	35,625	25,304	28,752
Depreciation and amortization	(Btmn)	17,479	19,451	19,055	19,198	20,292	23,390	24,038	24,549
Operating cash flow	(Btmn)	46,435	61,765	53,554	30,337	21,953	65,592	50,389	39,994
Investing cash flow	(Btmn)	(1,957)	(41,545)	(32,842)	(41,780)	(28,274)	(28,012)	(24,854)	(21,889)
Financing cash flow	(Btmn)	(25,094)	(9,511)	(27,397)	(6,461)	31,794	(6,223)	(22,665)	10,235
<b>Net cash flow</b>	<b>(Btmn)</b>	<b>19,384</b>	<b>10,709</b>	<b>(6,685)</b>	<b>(17,904)</b>	<b>25,473</b>	<b>31,357</b>	<b>2,871</b>	<b>28,340</b>

## Key Financial Ratios

FY December 31	Unit	2016	2017	2018	2019	2020	2021F	2022F	2023F
Gross margin	(%)	12.2	13.1	10.1	5.4	3.7	13.7	9.4	9.9
Operating margin	(%)	8.7	9.9	7.3	1.4	(0.8)	9.3	5.4	6.3
EBITDA margin	(%)	14.4	14.8	11.5	6.6	6.0	14.9	11.1	12.0
EBIT margin	(%)	9.5	10.4	7.8	1.9	(0.1)	9.7	5.9	6.7
Net profit margin	(%)	7.2	8.9	7.7	2.8	0.1	10.9	5.4	6.2
ROE	(%)	10.6	14.9	13.9	2.7	(0.3)	11.5	7.6	8.3
ROA	(%)	6.7	9.6	9.0	1.8	(0.2)	7.0	4.7	5.2
Net D/E	(x)	0.2	0.1	0.1	0.3	0.3	0.2	0.1	0.1
Interest coverage	(x)	12.0	16.6	16.6	8.7	5.7	10.9	8.5	9.4
Debt service coverage	(x)	3.4	4.8	3.7	2.1	0.8	1.6	4.5	6.3
Payout Ratio	(%)	50.2	48.8	47.8	77.2	2,258.9	39.4	49.9	50.2

## Main Assumptions

FY December 31	Unit	2016	2017	2018	2019	2020	2021F	2022F	2023F
Utilization rate - Olefins	(%)	90.0	96.0	101.0	102.0	97.0	100.0	100.0	100.0
Utilization rate - Aromatics	(%)	82.0	79.8	93.0	88.0	96.0	95.0	95.0	95.0
Utilization rate - Oil Refinery	(%)	76.0	102.6	101.7	86.9	97.3	100.0	100.0	100.0
HDPE-naphtha spread	(US\$/t)	734	672	716	468	499	520	550	550
PX-condensate spread	(US\$/t)	395	381	451	351	228	250	280	280
Market GRM	(US\$/bbl)	5.32	6.74	6.08	3.86	2.24	3.65	5.05	6.02

## Financial statement

## Profit and Loss Statement

FY December 31	Unit	4Q19	1Q20	2Q20	3Q20	4Q20	1Q21	2Q21	3Q21
Total revenue	(Btmn)	85,765	93,806	69,976	77,148	88,362	102,676	112,627	113,189
Cost of goods sold	(Btmn)	83,146	99,364	66,494	72,346	78,889	87,920	96,409	97,421
<b>Gross profit</b>	<b>(Btmn)</b>	<b>2,619</b>	<b>(5,558)</b>	<b>3,481</b>	<b>4,801</b>	<b>9,473</b>	<b>14,756</b>	<b>16,218</b>	<b>15,768</b>
SG&A	(Btmn)	4,665	3,570	3,271	3,528	4,512	3,955	4,417	4,998
Other income	(Btmn)	801	359	762	223	939	408	363	567
Interest expense	(Btmn)	765	804	861	909	937	1,184	1,530	1,704
<b>Pre-tax profit</b>	<b>(Btmn)</b>	<b>(2,011)</b>	<b>(9,573)</b>	<b>111</b>	<b>587</b>	<b>4,962</b>	<b>10,025</b>	<b>10,634</b>	<b>9,634</b>
Corporate tax	(Btmn)	1	(1,295)	406	235	546	721	5,591	727
Equity a/c profits	(Btmn)	925	561	805	884	1,072	1,893	2,324	1,154
Minority interests	(Btmn)	(122)	(62)	(1)	(74)	(316)	(132)	(141)	(233)
<b>Core profit</b>	<b>(Btmn)</b>	<b>(1,209)</b>	<b>(7,778)</b>	<b>510</b>	<b>1,163</b>	<b>5,173</b>	<b>11,065</b>	<b>7,226</b>	<b>9,828</b>
Extra-ordinary items	(Btmn)	1,583	(1,006)	1,161	(254)	1,232	(1,370)	17,809	(2,822)
<b>Net Profit</b>	<b>(Btmn)</b>	<b>374</b>	<b>(8,784)</b>	<b>1,671</b>	<b>908</b>	<b>6,405</b>	<b>9,695</b>	<b>25,035</b>	<b>7,005</b>
EBITDA	(Btmn)	3,522	(3,854)	5,989	6,575	11,181	16,666	17,753	17,175
<b>Core EPS</b>	<b>(Btmn)</b>	<b>(0.27)</b>	<b>(1.73)</b>	<b>0.11</b>	<b>0.26</b>	<b>1.15</b>	<b>2.45</b>	<b>1.60</b>	<b>2.18</b>
Net EPS	(Bt)	0.08	(1.95)	0.37	0.20	1.42	2.15	5.55	1.55

## Balance Sheet

FY December 31	Unit	4Q19	1Q20	2Q20	3Q20	4Q20	1Q21	2Q21	3Q21
Total current assets	(Btmn)	104,494	89,374	103,054	98,951	129,911	188,244	222,986	221,154
Total fixed assets	(Btmn)	348,020	353,373	354,392	355,297	359,472	364,448	358,129	359,309
<b>Total assets</b>	<b>(Btmn)</b>	<b>452,514</b>	<b>442,747</b>	<b>457,446</b>	<b>454,249</b>	<b>489,383</b>	<b>552,692</b>	<b>581,115</b>	<b>580,464</b>
Total loans	(Btmn)	106,778	107,804	130,544	129,834	148,002	190,008	192,493	177,427
Total current liabilities	(Btmn)	53,033	46,067	39,201	53,780	59,041	68,911	73,277	101,041
Total long-term liabilities	(Btmn)	105,886	112,633	137,077	118,374	141,347	184,017	187,626	157,983
<b>Total liabilities</b>	<b>(Btmn)</b>	<b>158,919</b>	<b>158,700</b>	<b>176,278</b>	<b>172,153</b>	<b>200,389</b>	<b>252,928</b>	<b>260,902</b>	<b>259,024</b>
Paid-up capital	(Btmn)	45,088	45,088	45,088	45,088	45,088	45,088	45,088	45,088
<b>Total equity</b>	<b>(Btmn)</b>	<b>293,595</b>	<b>284,047</b>	<b>281,168</b>	<b>282,095</b>	<b>288,994</b>	<b>299,764</b>	<b>320,212</b>	<b>321,439</b>
<b>BVPS</b>	<b>(Bt)</b>	<b>63.39</b>	<b>61.28</b>	<b>60.64</b>	<b>60.87</b>	<b>62.33</b>	<b>64.65</b>	<b>69.23</b>	<b>69.48</b>

## Cash Flow Statement

FY December 31	Unit	4Q19	1Q20	2Q20	3Q20	4Q20	1Q21	2Q21	3Q21
Core Profit	(Btmn)	(1,209)	(7,778)	510	1,163	5,173	11,065	7,226	9,828
Depreciation and amortization	(Btmn)	4,768	4,915	5,017	5,079	5,281	5,458	5,589	5,837
Operating cash flow	(Btmn)	7,707	370	10,055	2,587	8,941	8,649	10,377	21,922
Investing cash flow	(Btmn)	(19,954)	(2,635)	(12,151)	(1,027)	(12,461)	(41,755)	(4,291)	11,934
Financing cash flow	(Btmn)	(600)	650	15,609	(3,625)	19,160	37,842	(4,705)	(29,262)
<b>Net cash flow</b>	<b>(Btmn)</b>	<b>(12,846)</b>	<b>(1,615)</b>	<b>13,514</b>	<b>(2,065)</b>	<b>15,640</b>	<b>4,736</b>	<b>1,381</b>	<b>4,595</b>

## Key Financial Ratios

FY December 31	Unit	4Q19	1Q20	2Q20	3Q20	4Q20	1Q21	2Q21	3Q21
Gross margin	(%)	3.1	(5.9)	5.0	6.2	10.7	14.4	14.4	13.9
Operating margin	(%)	(2.4)	(9.7)	0.3	1.7	5.6	10.5	10.5	9.5
EBITDA margin	(%)	4.1	(4.1)	8.6	8.5	12.7	16.2	15.8	15.2
EBIT margin	(%)	(1.5)	(9.3)	1.4	1.9	6.7	10.9	10.8	10.0
Net profit margin	(%)	0.4	(9.4)	2.4	1.2	7.2	9.4	22.2	6.2
ROE	(%)	(1.6)	(10.8)	0.7	1.7	7.2	15.0	9.3	12.3
ROA	(%)	(1.1)	(7.0)	0.5	1.0	4.4	8.5	5.1	6.8
Net D/E	(x)	0.3	0.3	0.4	0.4	0.4	0.5	0.4	0.4
Interest coverage	(x)	4.6	(4.8)	7.0	7.2	11.9	14.1	11.6	10.1
Debt service coverage	(x)	1.1	(1.4)	2.5	0.9	1.7	2.4	2.3	1.5

## Key Statistics

FY December 31	Unit	4Q19	1Q20	2Q20	3Q20	4Q20	1Q21	2Q21	3Q21
Utilization rate - Olefins	(%)	100.0	81.0	100.0	103.0	104.0	104.0	93.0	91.0
Utilization rate - Aromatics	(%)	87.0	97.0	99.0	91.0	98.0	98.0	102.0	100.0
Utilization rate - Oil Refinery	(%)	51.0	103.0	102.0	94.0	91.0	102.0	101.0	77.0
HDPE-naphtha spread	(US\$/t)	301	398	486	522	592	588	585	462
PX-condensate spread	(US\$/t)	256	262	271	190	193	240	283	304
Market GRM	(US\$/bbl)	4.66	3.49	2.31	1.22	1.78	3.17	2.03	3.20

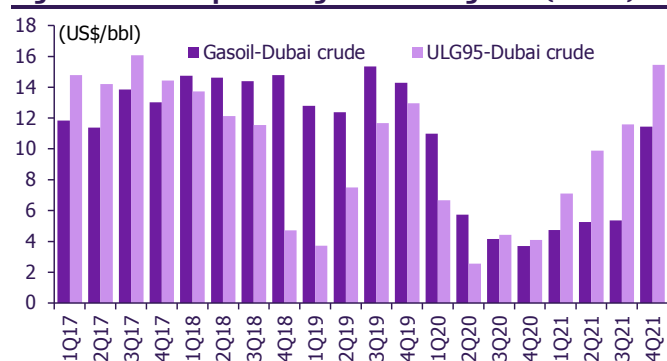
Figure 1: PTTGC – 4Q21F preview

(Btmn)	4Q20	3Q21	4Q21F	%YoY	%QoQ
Sales and Service Incomes	88,362	113,189	124,190	40.5	9.7
EBITDA	10,284	16,663	12,264	19.3	(26.4)
Core profit	4,148	8,657	3,388	(18.3)	(60.9)
<b>Net profit</b>	<b>6,405</b>	<b>7,005</b>	<b>4,821</b>	<b>(24.7)</b>	<b>(31.2)</b>
EPS (Bt/share)	1.42	1.55	1.07	(24.7)	(31.2)
CDU utilization rate	91%	77%	101%	10.0	24.0
Market GRM (PTTGC)	1.78	3.20	6.40	259.6	100.0
Utilization rate - PE	110%	104%	98%	(12.0)	(6.0)
EBITDA margin - Olefins	23%	18%	16%	(7.0)	(2.0)
Utilization rate - BTX	98%	100%	97%	(1.0)	(3.0)
P2F margin - aromatics (US\$/t)	102	188	111	8.8	(41.0)

Source: PTTGC, SCBS Investment Research

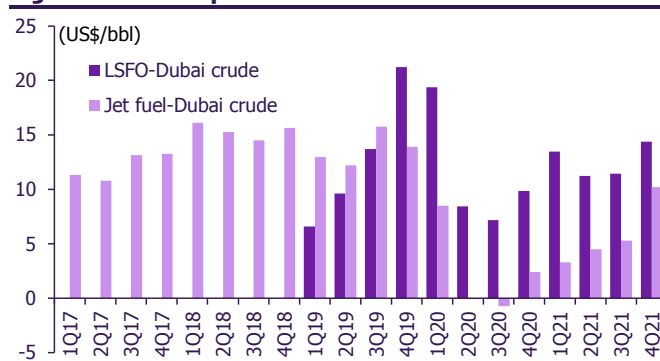
## Appendix

Figure 2: Crack spread – gasoline vs. gasoil (diesel)



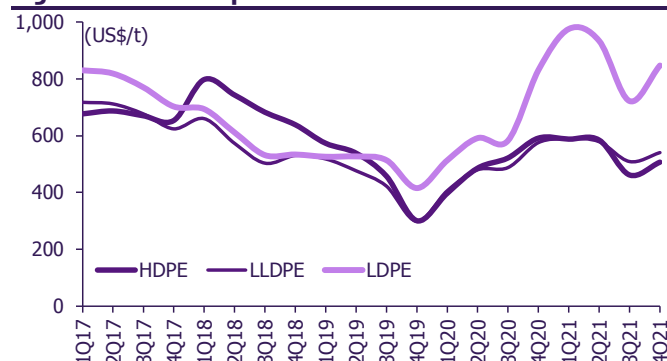
Source: Industry data, PTTGC, SCBS Investment Research

Figure 3: Crack spread – Jet fuel vs. LSFO



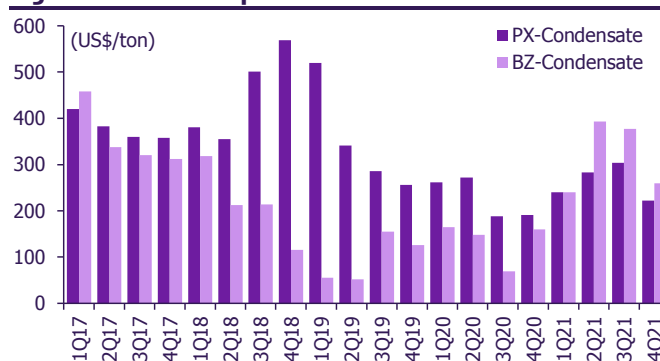
Source: Industry data, PTTGC, SCBS Investment Research

Figure 4: Product price – olefins



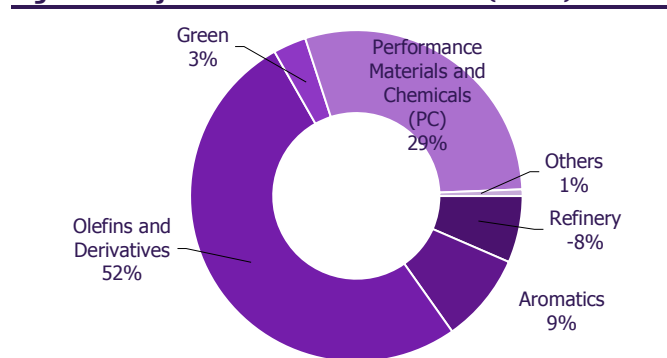
Source: Industry data, PTTGC, SCBS Investment Research

Figure 5: Product spread – aromatics



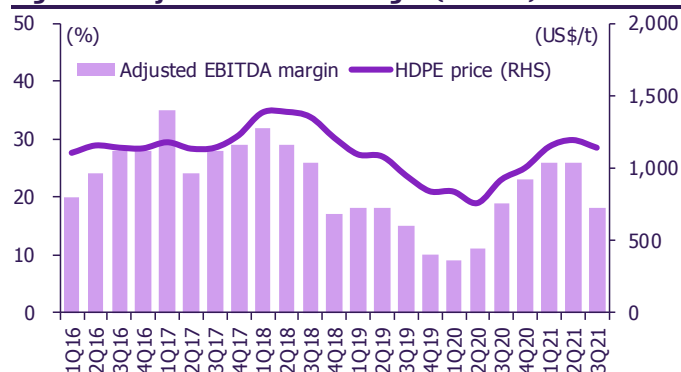
Source: Industry data, PTTGC, SCBS Investment Research

Figure 6: Adjusted EBITDA breakdown (9M21)



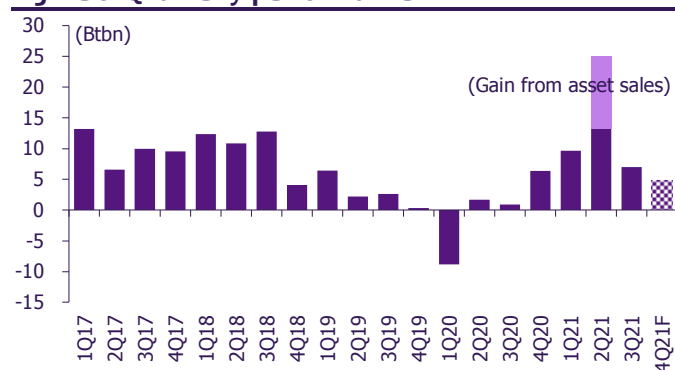
Source: Industry data, PTTGC, SCBS Investment Research

Figure 7: Adjusted EBITDA margin (olefins)



Source: PTTGC, SCBS Investment Research

Figure 8: Quarterly performance



Source: PTTGC, SCBS Investment Research

Figure 9: PTTGC – PBV



Source: Bloomberg Finance LP, SCBS Investment Research

Figure 10: PTTGC – maintenance shutdown plan (2022)

Plant	2022											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
OLE	Cracker	19	OLE4		39	OLE3			16	OLE2/1 and OLE2/3		27
	Oleflex											OLE2/2
POL	HDPE								28	BPE1	38	HDPE
	LDPE				24							
	LLDPE I				7							
	LLDPE II				20							
	PS				15							
EOB	TOCGC		35									
	EA		35									
PHN	Phenol I											
	Phenol II											11
	BPA						30					
REF	Refinery										50	
ARO1	Aromatics I				30							
	Aromatics II											
ECO	PO									56		

Source: PTTGC, SCBS Investment Research

Figure 11: Valuation summary (price as of Jan 25, 2022)

	Rating	Price (Bt/Sh)	Target (Bt/Sh)	ETR (%)	P/E (x)			EPS growth (%)			P/BV (x)			ROE (%)			Div. Yield (%)			EV/EBITDA (x)		
					20A	21F	22F	20A	21F	22F	20A	21F	22F	20A	21F	22F	20A	21F	22F	20A	21F	22F
GGC	Neutral	13.60	11.0	(16.5)	25.2	28.5	19.1	n.m.	(12)	49	1.4	1.4	1.3	6	5	7	2.6	1.8	2.6	10.4	11.3	9.3
IVL	Outperform	47.50	55.0	20.8	228.4	9.1	6.7	(78)	2,406	37	2.1	1.8	1.5	1	21	25	1.5	3.4	5.1	15.9	6.4	4.6
PTTGC	Neutral	56.75	80.0	45.9	n.m.	7.2	10.1	n.m.	n.m.	(29)	0.9	0.8	0.8	(0)	12	8	1.8	7.6	4.9	17.3	4.7	5.9
<b>Average</b>					<b>126.8</b>	<b>14.9</b>	<b>12.0</b>	<b>(78)</b>	<b>1,197</b>	<b>19</b>	<b>1.5</b>	<b>1.3</b>	<b>1.2</b>	<b>2</b>	<b>13</b>	<b>13</b>	<b>1.9</b>	<b>4.2</b>	<b>4.2</b>	<b>14.5</b>	<b>7.5</b>	<b>6.6</b>

Source: SCBS Investment Research

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**Corporate Governance Report**

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To recognize well performers, the list of companies attaining "Good", "Very Good" and "Excellent" levels of recognition

(Not including listed companies qualified in the "no announcement of the results" clause from 1 January 2020 to 26 October 2021) is publicized.

<sup>1</sup> TIP was voluntarily delisted from the Stock Exchange of Thailand effectively on July 24, 2021

<sup>2</sup> RCI was voluntarily delisted from the Stock Exchange of Thailand, effectively on July 16, 2021

\* บริษัทหรือกรรมการหรือผู้บริหารของบริษัทที่มีข่าวด้านการกำกับดูแลกิจการ เช่น การกระทำความผิดเกี่ยวกับหลักทรัพย์ การทุจริต คอร์รัปชัน เป็นต้น ซึ่งการใช้ข้อมูล CGR ควรระมัดระวังข่าวดังกล่าวประกอบด้วย

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**Declared (ประกาศเจตนารมณ์)**

7UP, ABICO, AJ, ALT, APCO, AS, BEC, BKD, CHG, CPL, CPR, CPW, CRC, DDD, DHOUSE, DOHOME, ECF, EKH, ETC, EVER, GULF, III, INOX, J, JMART, JMT, JR, KEX, KUMWEL, LDC, MAJOR, MATCH, MILL, NCL, NOVA, NRF, NUSA, PIMO, PR9, RS, SAK, SCGP, SCM, SIS, STAR, STECH, STGT, SUPER, TQM, TSI, VCOM, VIBHA, WIN, YUASA, ZIGA

**N/A**

3K-BAT, A, A5, AAV, ABM, ACAP, ACC, ACE, ACG, ADB, ADD, AEONTS, AFC, AGE, AH, AHC, AIT, AJA, AKR, ALL, ALLA, ALUCON, AMARIN, AMC, AMR, ANAN, AOT, APEX, APP, APURE, AQ, ARIN, ARIP, ASAP, ASEFA, ASIA, ASIMAR, ASN, ASW, ATP30, AU, AUCTION, B52, BA, BBIK, BC, BCT, BDMS, BE8, BEAUTY, BEM, BFIT, BGT, BH, BIG, BIZ, BJC, BLAND, BLISS, BM, BOL, BR, BRI, BROCK, BSM, BTNC, BTW, BUI, BYD, CAZ, CBG, CCET, CCP, CGD, CHARAN, CHAYO, CHO, CI, CITY, CK, CKP, CMAN, CMO, CMR, CNT, COLOR, COMAN, CPANEL, CPH, CPT, CRANE, CRD, CSP, CSR, CSS, CTW, CV, CWT, D, DCON, DITTO, DMT, DOD, DPAINT, DTCL, DV8, EASON, EE, EFORL, EMC, ESSO, F&D, FANCY, FLOYD, FMT, FN, FORTH, FVC, GENCO, GIFT, GL, GLAND, GLOBAL, GLOCON, GLORY, GRAMMY, GRAND, GREEN, GSC, GTB, GYT, HENG, HFT, HL, HPT, HTECH, HUMAN, HYDRO, ICN, IHL, IIG, ILM, IMH, IND, INGRS, INSET, IP, IRCP, IT, ITD, JAK, JAS, JCK, JCKH, JCT, JP, JSP, JTS, JUBILE, JUTHA, JWD, KAMART, KC, KCM, KDH, KIAT, KISS, KK, KKC, KOOL, KTIS, KUN, KWM, KYE, LALIN, LEE, LEO, LIT, LOXLEY, LPH, LST, MACO, MANRIN, MATI, MAX, M-CHAI, MCS, MDX, MEGA, MENA, METCO, MGT, MICRO, MIDA, MITSIB, MJD, MK, ML, MODERN, MORE, MPIC, MUD, MVP, NC, NCP, NCH, NDR, NER, NETBAY, NEW, NEWS, NEX, NFC, NPK, NSL, NTV, NV, NVD, NYT, OHTL, OISHI, ONEE, OR, OSP, OTD, PACE, PACO, PAE, PERM, PF, PICO, PIN, PJW, PLE, PMTA, POLAR, POMPU, PORT, POST, PPM, PRAKIT, PRAPAT, PRECHA, PRIME, PRIN, PRO, PROEN, PROUD, PSG, PTL, RAM, RBF, RCL, RICHY, RJH, ROCK, ROH, ROJNA, RP, RPC, RPH, RSP, RT, S, S11, SA, SABUY, SAFARI, SALEE, SAM, SAMART, SAMCO, SAMTEL, SANKO, SAUCE, SAWAD, SAWANG, SCI, SCP, SDC, SE, SEAFCO, SECURE, SF, SFLEX, SFP, SFT, SGF, SHANG, SHR, SHI, SIAM, SICT, SIMAT, SISB, SK, SKE, SKN, SKY, SLM, SLP, SMART, SMD, SMT, SNPN, SO, SOLAR, SONIC, SPA, SPCG, SPG, SPVI, SQ, SR, SSC, STANLY, STARK, STC, STEC, STANG, STAI, STI, STPI, SUC, SUN, SUTHA, SVH, SVOA, SVT, SWC, SYNEX, TACC, TAPAC, TC, TCC, TCCC, TCJ, TCOAT, TEAM, TEAMG, TFM, TGPRO, TH, THAI, THANA, THE, THG, THL, THMUI, TIGER, TIPI, TITLE, TK, TKC, TKN, TM, TMC, TMI, TMW, TNDT, TNH, TNPC, TOA, TPAC, TPBI, TPCH, TPCS, TPIPL, TPIPP, TPLAS, TPOLY, TPS, TQR, TR, TRC, TRITN, TRT, TRUBB, TRV, TSE, TSF, TSR, TTI, TTT, TTW, TVT, TWP, TWZ, TYCN, UAC, UMI, UMS, UNIQ, UP, UPA, UPOIC, UREKA, UT, UTP, UVAN, VARO, VL, VNG, VPO, VRANDA, W, WAVE, WFX, WGE, WINMED, WINNER, WORK, WORLD, WP, WPH, XPG, YGG

**Explanations**

Companies participating in Thailand's Private Sector Collective Action Coalition Against Corruption programme (Thai CAC) under Thai Institute of Directors (as of October 24, 2021) are categorised into: companies that have declared their intention to join CAC, and companies certified by CAC.